

Remarks/Arguments

Claims 1 and 2 are pending in the application. Claim 1 is independent.

In the present response, the claims are not amended.

Rejection of claim 1 under 35 U.S.C. 103(a) over Farhangi et al. (US Patent 5647008, hereinafter "Far") further in view of Smith et al. (US Patent 7212872, hereinafter "Smith").

Applicants submit that for at least the following reasons, claim 1 is patentable over Far and Smith, either singly or in combination.

For example, claim 1, in part, requires:

"Method for processing two or more decoded but not yet combined individual audio signals received or replayed from different audio sources, wherein at least two of said decoded audio signals have a different number of channels per decoded audio signal and different channel configurations for channel to speaker mapping, ...

... controlling said mixing and/or switching such that in case of non-matching number of channels and non-matching types of channel configurations the number of the channels and the configuration type of the channels to be output following said mixing and/or following said switching is determined by specific mixing and/or switching information provided from a content provider or broadcaster so as to resolve such conflict." (Emphases added)

Since Applicants' invention deals with a method for processing two or more decoded but not yet combined individual audio signals received or replayed from different audio sources, the signals to be processed are already in the receiver. Thus, it is clear that the conflict resolution is to be performed at the receiver side. For example, the original channel number/configuration instructions (see Applicants' specification, page 1, lines 34 - 35; page 2, lines 31 - 33) provided by the content

provider of each audio signal source can - for the case of possible conflict - be superimposed by specific channel number/configuration instructions (page 3, lines 30 - 31; page 3, line 34 to page 4, line 5) of a content provider or broadcaster for the purpose of mixing and presenting such different types of audio signals.

However, Applicants submit that both Far and Smith deal with audio signal mixing at the sender or transmitter side. At the transmitter side, the transmitter knows which kind of audio signals are present and are to be mixed and how they are to be mixed. Since the broadcaster or content provider is already aware of the situation at the receiver side and designs the bitstream transmitted accordingly so that no conflicting channel number/configuration can occur at the receiver side mixdown. Thus, the mix instruction or assignment of the audio signal channels already occurs at the transmitter side (Far: abstract; Fig.2; column 3, lines 10-12; Smith: abstract; Fig.12; column 7, lines 7-15; column 8, lines 47-48 and 52-54). In other words, the audio signals received at the receiver side will not have different number of channels per decoded audio signal and different channel configurations for channel to speaker mapping. Thus, in Far or Smith, there is no channel configuration conflict at the receiver side.

In the Office Action, pages 5 – 6, Response to Arguments section, the Office alleges that a digital mixer (such as Far's digital mixer 277) combines equal length digital words corresponding to a shared clock instant (Far: column 4, lines 41 – 45); that the Far invention teaches or suggests a manner in which the various conflicting signals are resolved into equal length similarly clocked signals. However, Applicants submit that the digital word lengths and the sampling clock cycles in Far are related to bit rates of the signals, but they are not channel configurations. Thus, Far does not teach or suggest resolving channel configuration conflicts.

Therefore, in Far and Smith, there is no channel/configuration conflict at the receiver side and thus there is no teaching or suggestion to resolve such conflict for the two or more decoded but not yet combined individual audio signals received or replayed from different audio sources.

Furthermore, the claimed invention deals with conflicts having different number of channels per decoded audio signal and different channel configurations for channel to speaker mapping.

In the Office Action, page 3, the Office alleges that Far, column 3, lines 9 – 60; Fig. 2, teaches that a mixer combines 5.1 signals such as MPEG, stereo in the form of at least an encoded analog CD signal or standard AES/EBU signal, and an encoded microphone signal. Applicants respectfully traverse.

According to MPEG-1 Audio standard ISO/IEC 11172-3 (first edition, published August 1, 1993) and MPEG-2 Audio standard ISO/IEC 13818-3 (first edition, published in 1995; second edition, published April 15, 1998), MPEG-1 Audio is not related to multichannel audio encoding, and MPEG-2 Audio is related to multichannel audio coding, such as 5.1 channel coding.

Applicants submit that Far's patent application was filed on February 22, 1995, thus the invention was made before February 22, 1995, and the disclosure regarding MPEG was directed towards the existing standard before February 22, 1995. Far, column 3, lines 48 – 49, discloses that the MPEG deformatter 244 is "commercially available". Therefore, it is clear that Far's teaching is related only to the MPEG-1 audio, as only MPEG-1 was commercially available at the time of Far's patent application. In other words, Far does not teach or suggest 5.1 encoding, as MPEG-1 audio is related to mono or stereo audio signals only.

As discussed above, the digital word lengths and the sampling clock cycles in Far are related to bit rates of the signals, but they are not channel configurations.

Since Far teaches only MPEG-1 audio and does not teach or suggest resolving conflicts in channel configurations, a skilled person in the art would not find it obvious to combine and modify the teachings of Far and Smith to arrive at the claimed invention.

In view of at least the foregoing, Applicants submit that claim 1 is patentable over the combination of Far and Smith.

Rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over Far in view of Smith, further in view of Saunders et al. (US Patent 7266501, hereinafter Saunders).

Applicants submit that Saunders, does not in any way cure the deficiencies present in the combination of Far and Smith with regard to suggesting the features of claim 1, as discussed above. Therefore, claim 2 is patentable because at least it depends from claim 1 and includes further distinguishing features.

Withdrawal of the rejection of claims 1 and 2 under 35 U.S.C. 103(a) is respectfully requested.

Conclusion

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at (609) 734-6813, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,
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Date: 11/17/10

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